

Minutes for Rule 21 Working Group Meeting #78
February 6, 2007
Southern California Edison
Fontana, CA

There were 27 Working Group members in attendance in person or participating over the internet by Webex.

Jose Palomo, Chair

Beck	Valerie	CPUC	Parks	Ken	SDG&E
Bantz	Tom	UTC Power	Prabhu	Edan	Reflective Energies
Blumer	Werner	CPUC/ED	Salas	Roger	SCE
Brown	David	SMUD	Sheriff	Nora	CAC/EPUC
Collins	Matthew	SCE	Skillman	Fred	PG&E
Couts	George	SCE	Solt	Chuck	Lindh & Assoc
Goh	Jeff	PG&E	Sugar	John	CEC
Iammarino	Mike	SDG&E	Taylor	Gabriel	CEC
Jackson	Jerry	PG&E	Tolentino	Kristin	PG&E
Levine	Bob	SCE	Torribio	Gerome	SCE
Manzuk	Chuck	SDG&E	Vartanian	Charlie	SCE
Mazur	Mike	3 Phases Ergy Serv	Vaziri	Mohammad	PG&E
McAuley	Art	PG&E	Whitaker	Chuck	BEW Engineering
Morse	Jay	CPUC/Energy			

Combined Working Group

Housekeeping

- It was noted that the CEC comment was not yet incorporated into the Meeting 77 Minutes. That will be inserted and the revised minutes posted.
- The next meeting of the WG will be May 15, 2007 at CEC Headquarters in Sacramento.

COMBINED GROUP

Certification Expiration

The Technical Group is working on the issue of the pending UL Effective date, and its implication on Rule 21 certified equipment. How can utilities tell which standard a piece of equipment has been tested to—are model numbers changed? Do we need to communicate any of this change information to customers?. Whitaker will draft and circulate language stating the Rule 21 WG position on this issue (i.e., currently certified equipment will remain on the list for some period of time to allow product in the sales pipeline prior to the UL effective date to remain eligible for Certified Equipment status for some reasonable period of time. Please read Endnote ⁱ for a copy of Chuck Whitaker's 3/22/2007 email addressed to members of the Rule 21 Working Group.

IEEE 1547 Update

- Moh and Chuck attended the recent IEEE 1547 series meeting held in Atlanta January 31 – February 2,, 2007.
- 1547.6 Network Interconnection is in progress. This standard will address Deminimus connections, which might be considered comparable with the Rule 21 simplified interconnection. The Grid Network requirements from the 2006 Rule 21 Network Report and a Massachusetts Spot Network allowance (1/15th of facility minimum load) are included as and examples of deminimus requirements.
- The next meeting of the IEEE 1547 committee will be in August 2007 on the West Coast
- 1547.4 covering islanding also in progress.
- 1547.2, the Application Guide close to a vote.
- 1547 will be due for maintenance in 2008

Certification Items –

- Certification of the DFC 300MA should be completed following this meeting
- The 1.2 MW Satcon FCE units will be completed in 2 or 3 months.

CPUC Actions

The Multiple Tariff Advice Letters were submitted about 6 months ago, but the CPUC asked for some revision. PG&E took the lead on resolving the issues. Final agreement was reached between PG&E and the CPUC the day before the meeting. The AL from PG&E is expected to be submitted in 2 weeks. ALs from the other utilities will follow. These ALs are: SCE AL1969 EB – PG&E AL 2888 EA and SDG&E AL 1777 EA – SDG&E

Changes to Rule 21

- Table C2
- F.8
- Section I3B
- Revisions to Interconnection Application form 79-974
- New Interconnection agreement form 79-1069
- Revisions to NEM tariff sheets: NEM, NEMBIO, NEMFC

Continuous export

Mike Mazur asked about the development of application standards for continuous export. Jerry Jackson indicated that PG&E is currently working on agreements. Mike is looking for a roadmap on how utilities handle compensated and uncompensated continuous export. Fred Skillman asked if this issue should be presented to WG as a new action item. Mike is to prepare a half page statement for consideration.

Planning for Future of the Working Group

There was additional discussion of the future of the WG.

- Energy Commissioner Byron office supports DER and Rule 21
- Fred Skillman presented opinion on direction
 - Action item – to decide the mission of the WG
 - Shall we create a charter?
- What does CPUC want from Rule 21?
- Technical group has ongoing Rule 21 issues.
- Mike Mazur – DER needs strong support. Feels we need CEC support.
 - Non-renewable need support
 - Gabe Taylor indicated that the CEC Commissioners are talking about support.
 - Jay Morse and Jose Palomo will try to get any direction available from the agencies.
 - Fred Skillman WG would appreciate direction.

PROCESS GROUP BREAKOUT

Discussion about consolidation of Utility DG Reports

It was mentioned that the DG Activity Report on the Rule 21 web site is not up to date. Chuck Solt will review the data needs and notify the utilities of deficiencies.

Action Item List

The Process Group Action Item List was reviewed and updated.

TECHNICAL GROUP BREAKOUT

Fred Skillman (PG&E) presented thoughts on the two Combined issues: Net Gen Output Metering and Telemetry. Rule 21 Section F.3 references Rule 22 for NGOM requirements. Should we develop specific Rule 21 requirements for this? After Fred's discussion, the group agreed to keep these two items as Medium level priority – other issues will take precedence.

Discussed T139 Transmission Interconnection issue , including

- Definition of Distribution system in Rule 21 makes no distinction between distribution and transmission (this was the concern raised by PG&E in the combined session. Voltage is not a reliable distribution/transmission distinction given the significant differences in upper voltages considered "distribution level" by the three IOU's. While there may be other technical descriptions that can be used the one single characteristic that is consistent among the three IOUs is the jurisdictional separation: what is considered Transmission System falls under CAISO jurisdiction. Distribution and sub-transmission are under CPUC jurisdiction. Rule 21 Section A, Applicability notes:

This Rule describes the Interconnection, operating and Metering requirements for Generating Facilities to be connected to Electric Corporation's (EC) Distribution System over which the California Public Utilities Commission (Commission) has jurisdiction.

This limitation to the document may be considered an adequate definition of "distribution system". The need to make the definition consistent with other Rules--or at least verify that it already is consistent--was acknowledged.

- Utility fault contribution can be extremely high at Transmission level PCC, and generating facilities that would otherwise require more substantial system protection won't fail the SCCR screen that would normally trigger such equipment. Adding an absolute short circuit current limit in addition to the relative (10% SCCR) might solve part of the problem
- Delta primary-connected Generating Facilities will have no fault contribution based on the SCCR calculation but may create a fault concern nonetheless.

Moh and Christina Tolentino (PG&E) will put together a write-up for the group to discuss.

There was a brief discussion about the needs of the Tech Group going forward. It was suggested that Technical issues are not all resolved and it's probably not appropriate to consider this side of the Rule 21 workgroup's work completed. Also discussed the recent lack of progress on Action Item issues. It was felt this was due to the very small amount of meeting time we actually have for focusing on technical issues (this session started at 13:30 following lunch, and ended at just after 3pm to accommodate the flights that many people had. One suggestion was to hold a separate Tech meeting in between the Combined meetings (i.e., roughly every two months).

Submitted by: Chuck Solt

Approved by: Edan Prabhu

From: "Chuck Whitaker" <Chuck.Whitaker@bewengineering.com>
To: "Kent Sheldon" <KSheldon@sma-america.com>, "Anthony Mazy" <amazy@cpuc.ca.gov>, "B. Scott Hunter" <Benjamin.Hunter@bpu.state.nj.us>, "Bill Brooks" <bill@brooksolar.com>, "Bill Cook" <wcook@semprautilities.com>, "Bill Erdman" <bill.erdman@bewengineering.com>, "Bill Steeley" <wsteeley@epri.com>, "Bob Baldwin" <robert.baldwin@sce.com>, "Bob Fick" <robert.fick@ladwp.com>, "Bryan Gernet" <Bryan.Gernet@aps.com>, "Charlie Vartanian" <Charles.Vartanian@sce.com>, "Chase Sun" <CTS1@pge.com>, "Chris Cook" <e3energy@aol.com>, "Chuck Arthur" <chucka@arthurengineering.com>, "Chuck Solt" <Chuck@CSolt.net>, "Chuck Sorter" <csorter@bluepointenergy.com>, "Cris Cooley (Overdomain)" <ccooley@overdomain.com>, "Dave Brown (Dave Brown)" <dbrown3@smud.org>, "Dave Michel" <dmichel@energy.state.ca.us>, "Dave O'Connor" <dave.oconnor@hibernianwindpower.ie>, "Dave Redding" <dredding@riversideca.gov>, "Don Smith" <dsh@cpuc.ca.gov>, "Doug Dawson" <dawsondc@worldnet.att.net>, "Ed Henderson" <edwhendersonpe@hotmail.com>, <edanprabhu@cox.net>, "Edward Brann" <eabrann@nisource.com>, "Fran Cummings" <cummings@masstech.org>, "Fred Kracke" <fred.kracke@xantrex.com>, "Gerard Burke" <gburke@fce.com>, "Greg Ball" <gball@powerlight.com>, "Gregory Rauch" <gregra@selinc.com>, "Hann Huang" <huanghs@aol.com>, "Herb Clowers" <hcdynamic@sbcglobal.net>, "Herb Healy" <Herb.Healy@UTCFuelCells.com>, "Jeff Goh" <JSG9@pge.com>, "Jeff Newmiller (Endecon)" <jeffn@endecon.com>, "Jerry Jackson" <grj4@pge.com>, "Jiab Tongsopit (jiab@uscs.edu)" <jiab@ucsc.edu>, "Jim Daley (Jim Daley)" <jdaley@asco.com>, "Jim Skeen" <jskeen1@netzero.net>, "John Bzura (John J. Bazura)" <john.bazura@us.ngrid.com>, "John Dixon" <JDixon@semprautilities.com>, "John Horak" <johnhorak@basler.com>, "John Stevens (John Stevens)" <jwsteve@sandia.gov>, "Jose Palomo" <jpalomo@energy.state.ca.us>, "Keith Davidson" <kdavidson@tecogen.com>, "Kirk Bracht" <kwb@cpuc.ca.gov>, "Mark Rawson (Mark Rawson)" <mrawson@energy.state.ca.us>, "Matthew Collins" <matthew.collins@sce.com>, "Mike Behnke (BEWE)" <mike.behnke@bewengineering.com>, "Mike Edds" <m.edds@ieee.org>, "Mike Iammarino" <miammarino@semprautilities.com>, "Mike Mazur" <mmazur@3phases.com>, "Mohammad Vaziri" <myv1@pge.com>, "Norman Richmond" <NDR1@pge.com>, "Paul Fukumoto" <paulfukumoto@irco.com>, "Paul J. Della" <paul.della@pacificorp.com>, "Randy Minnier" <randy@mpeconsulting.com>, "Ray Hudson" <ray.hudson@xantrex.com>, <rcm4@att.net>, "Richard Shaw" <rshaw@fce.com>, "Robert Malahowski" <rjmc@pge.com>, "Robert Panora" <RPanora@tecogen.com>, "Roger Salas" <roger.salas@sce.com>, "Scott Lacy" <Scott.Lacy@sce.com>, "Simon Chiang" <skc3@pge.com>, "Stan Blazewicz" <sblazewicz@navigantconsulting.com>, "Stan Sierra" <stanley.sierra@aps.com>, "Stephen Kalland" <steve_kalland@ncsu.edu>, "Stephen Torres (stores@fce.com)" <storres@fce.com>, "Steven Tobias" <stobias@navigantconsulting.com>, "Tim Zgonena" <timothy.p.zgonena@us.ul.com>, "Timothy R. Roughan" <TIMOTHY.ROUGHAN@us.ngrid.com>, "Tom Duffy" <tduffy2@hvc.rr.com>, "Tom Yost" <thomas.yost@aps.com>, "Werner Blumer" <wmb@cpuc.ca.gov>, "William E. Feero" <wfeero@pa.net>, "William Martini" <bilmartini@aol.com>, "Zee Mekonnen" <zerihun.mekonnen@sce.com>
Date: 3/27/2007 1:43:06 PM

Subject: RE: Rule 21 Position on UL 1741 May 7 Effective date...

Kent:

First, thank you for sending your response. I've yet to officially hear from anyone so was beginning to wonder if anyone cared.

The simple answer to your first comment is: not my job.

The Rule 21 workgroup only has "jurisdiction" over the Rule 21 requirements, and in this case the wording in Rule 21 that would affect the status of certified equipment contained on the Rule 21 list

<http://www.energy.ca.gov/distgen/interconnection/certification.html> This does not apply to the CEC Eligible Equipment List: www.consumerenergycenter.org/erprebate/equipment.html for the California Solar Initiative and the New Solar Home Partnership.

My understanding of the latter Eligible Equipment List is that they do not plan on removing anything at this point in time.

As for the limitation, at least with the Rule 21 interconnection application, once the application is approved, and unless you change the equipment, then its presence on the list 6 months or a year down the line when the project is completed shouldn't be an issue. Removing equipment from the Rule 21 list would only mean that it would not automatically be accepted as certified equipment after that point. In fact, the utility has the ability to accept non-certified equipment--does all the time--though they also have the right to impose test requirements, which the old listing results may or may not satisfy. One point of certification is to remove the uncertainty that the last sentence implies.

Hope that helps

Chuck Whitaker

From: Kent Sheldon [mailto:KSheldon@sma-america.com]
Sent: Tuesday, March 27, 2007 2:02 PM
To: 'Anthony Mazy'; B. Scott Hunter; Bill Brooks; Bill Cook; 'Bill Erdman';

Bill Steeley; 'Bob Baldwin'; 'Bob Fick'; 'Bryan Gernet'; Charlie Vartanian;
'Chase Sun'; 'Chris Cook'; 'Chuck Arthur'; 'Chuck Solt'; 'Chuck Sorter';
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Jose Palomo; 'Keith Davidson'; 'Kirk Bracht'; 'Mark Rawson (Mark Rawson)';
Matthew Collins; 'Mike Behnke (BEWE)'; 'Mike Edds'; 'Mike Iammarino'; Mike
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'Tom Duffy'; Tom Yost; 'Werner Blumer'; William E. Feero; 'William Martini';
'Zee Mekonnen'

Subject: Re: Rule 21 Position on UL 1741 May 7 Effective date...

Chuck, this mostly looks good to me. Thanks for clarifying this issue in a public forum. You are the first agency addressing this and the whole industry is asking the question.

My only comment is that since the UL mark is in 'full effect' indefinitely on pre-May 7 inverters, then the products should stay on the Eligible Equipment List indefinitely. I see no reason to disallow legally sold and marked equipment after one year from May 7, 2007. This is no different than allowing old PV modules or any other equipment to be installed within California.

Also, how does the status of equipment on the Eligible Equipment List effect the actual reservation/rebate process? As you know, the process between application and actual turn on can take 1-1.5 years.

I would like this limitation language removed from the proposed text. Best regards,

Kent Sheldon
Director of Sales
SMA America, Inc.
530 273 4895 ext 107

>>> "Chuck Whitaker" <Chuck.Whitaker@bewengineering.com> 3/22/2007 4:09:19

PM >>>

At the Fontana meeting in February I offered to write-up a position statement on the May 7 Effective date issue for UL 1741.

In a nutshell, the issue is that after May 7, manufacturers must either bring their equipment up to the Nov 2005 version of UL 1741 or cease applying the listing mark to that equipment. The Listing mark provides an indication that the piece of equipment met the Listing Requirements at the time of manufacture. Equipment manufactured before May 7 may be sold after that date with the Listing in full effect. Rule 21 should allow manufacturers and distributors an appropriate amount of time to clear the sales and distribution pipeline of pre May 7 product.

Please see the attached and share your comments with the group. I would like to vet and adopt this language quickly to eliminate any confusion about this issue.

Regards,

Chuck Whitaker

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